Notice of Allowability	Application No.	Applicant(s)	
	10/689,237	SLATTERY, KEVIN T.	
	Examiner	Art Unit	
	Jason L. Savage	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Amendment filed 3-22-06*.

2. ☒ The allowed claim(s) is/are *16-17, 19-20, 23-27, 29-31*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20060516* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

JENNIFER C. MCNEIL
SUPERVISORY PATENT EXAMINER
5/23/06

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Nick Gallo on 5-16-06.

The application has been amended as follows:

16. (Currently amended) A method of forming a preform for use in forming a structural member, the method comprising:

determining desired dimensions of the structural member;

providing a base member according to the dimensions of the structural member;

spraying particles of a structural material on the base member such that the structural material is disposed on the base member to form the preform, the preform having dimensions approximating the desired dimensions of the structural member, wherein said spraying step comprises directing a stream of the particles in a gas comprising hydrogen;

thereafter, machining the preform to remove excess material from the preform to form the structural member having the predetermined desired dimensions;

heating the preform and subjecting the preform to a sub-atmospheric pressure, thereby releasing hydrogen from the structural material of the structural member; and

subsequent to said spraying step, plastically deforming the preform according to the dimensions of the structural member such that the preform has dimensions approximating the desired dimensions of the structural member, wherein said plastically deforming step comprises deforming at least the base member.

Cancel claim 18.

26. (Currently amended) A method of forming a preform for use in forming a structural member, the method comprising:

determining desired dimensions of the structural member;

providing a base member according to the dimensions of the structural member;

spraying particles of a structural material on the base member such that the structural material is disposed on the base member to form the preform;

subjecting the preform to a sub-atmospheric pressure; ~~and~~

providing hydrogen gas to the preform after said subjecting step such that the preform absorbs the hydrogen gas;

subsequent to said subjecting step, cold isostatically pressing the preform to reduce a porosity of the preform; and

subsequent to said cold isostatically pressing step, heating the preform and subjecting the preform to a sub-atmospheric pressure, thereby releasing hydrogen from the preform.

Cancel claim 28.

Cancel claims 36.

Claims 16-17, 19-20, 23-27 and 29-31 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art teaches methods of forming preforms for structural members wherein particles are sprayed onto a base material wherein the use of hydrogen in the treating atmosphere is employed. For example, Tapphorn (US 6,915,964) teaches that the use of hydrogen gas on particles to be sprayed is known and that the hydrogen is released prior to the articles being sprayed (col. 29, ln. 1-41). Kobayashi (US

6,548,183) teaches forming a preform by spraying in a hydrogen containing atmosphere. Although Kobayashi teaches the release of hydrogen form the preform, this is cause by heating due to molten metal impregnation of the formed article (col 3, ln. 30-55).

The prior art does not teach or suggest that the spraying is performed in a gas comprising hydrogen, subsequently machining the preform, and then releasing hydrogen from the structural member by treating the preform to a sub-atmospheric pressure and heating such as is claimed in claims 16 and 29. The prior art also does not teach or suggest that hydrogen is provided after the particles have been sprayed and subjected to a sub-atmospheric pressure, then cold isostatically pressed and then subjected to another sub-atmospheric pressure treatment to release the hydrogen such as is claimed in claim 26.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason L. Savage whose telephone number is 571-272-1542. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Savage
5-17-06

JENNIFER C. MCNEIL
SUPERVISORY PATENT EXAMINER
5/23/06